INDEX OF SURGICAL PROGRESS.

OPERATIVE SURGERY.

I. A Method for the Radical Cure of Hernia. By Mr. J. GREIG SMITH (Bristol). The author, from an experience of 30 cases, extending over a period of six years, recommends the following method:

An incision of suitable length, from two to four inches or more, is made over the neck of the sac, as in ordinary herniotomy. It is, however, carried higher up the abdomen, and at the upper end may often with advantage be curved outward a little way. The neck of the sac is first isolated; this is done first that the position of the spermatic cord and vessels may be determined and avoided in all future steps. Where it is possible to do so, the next step should be to hook the finger around the neck of the sac, pull it forward, and by a little manipulation to turn the scrotum inside out. The whole hernia is now on view, and is carefully surrounded with warm antiseptic sponge-cloths. The sac is now isolated by dissection and tearing from above downward, the cord being carefully freed and left with a full share of areolar tissue around it. If there is doubt at any point as to the limits of the sac, it should be at once opened, and the finger inside made to serve as a guide. If the hernia is reducible, it is returned when the sac has been isolated; but before twisting the sac an opening should be made at its fundus, through which the finger is inserted to make certain that the hernial contents are completely returned. If the hernia is irreducible, the sac is laid freely open upward and downward by scissors through an opening that has been made at a part where the contents are not adherent. To avoid points of adhesion to underlying parts, the incision may have to be guided in lines that are not straight. To give additional room, and to minimise the bleeding from adhesions. it is usually best at once to ligature omentum at the neck where it is free from adhesions, divide it and at once return the stump with a long catch-forceps temporarily attached to it; on the distal side a forceps also is placed.

Then the subsequent steps of liberating adherent bowel and returning it, or of separating omentum from sac or bowel, or both, are proceeded with as circumstances direct. Some adhesions may be sponged apart; others require tearing and forci-pressure; while others demand ligation. The field of operation should be kept warm and isolated and clean by frequently changed sponge-cloths or large flat sponges.

All bowel being returned, and all omentum having been removed from the interior of the sac, and all bleeding having been checked, the fundus of the sac is grasped by two pairs of forceps, which are handed over to an assistant, who holds them well to the inside or the outside as the case may be, and rotates them as he is directed, thus twisting the sac. By turning the sac to one side or the other, and pulling more on one forceps than another, the peritoneal opening may be closed at one or other side of the hernial opening as we may desire, and not opposite to the opening. The assistant having given two or three turns to the sac, the forefingers, behind (feeling the cord) and in front, tease open the areolar tissue separating the neck of the sac from the inner parietes as high up as may seem desirable. Twisting, by gathering together the walls of the sac, very materially aids this process of separation. If the sac is exceptionally long, a piece of its fundus may be cut away. If it is very thin, it should not be twisted very tightly, in case vascular stasis and necrosis result.

The twisted and fully isolated sac now lies in the ring, with forceps attached to its fundus. Silk ligatures, with needles at both ends, are now placed, one ligature at the fundus, another at or above the neck of the sac. The ligature at the fundus is made to pass several times through both walls of the sac. The ligature, or rather suture, at the neck is made to gather together a sufficiency of areolar tissue on the sac. There is no strong objection to its perforating the sac; but it should not be made to surround it, on account of the risk of sloughing.

The sac is now laid across the opening, as nearly transversely as possible, and fixed by the sutures at its extremities to the firm parietes beyond beneath which it has been tucked. The aim is to get the internal orifice of the twisted sac opposite the strongest part of the parietes, and away from the internal opening. As a general rule, it is best to twist in a line opposite to that of the axis of the canal. But no absolute rule is possible; each case must be dealt with according to its peculiarities. By mean s of curved needles, held in a needle-holder, or by a handle needle like that of Macewen, the sutures are passed through the parietes under the retracted skin. The position of the deep epigastric is first ascertained and avoided. It is usually best to fix the fundus first; Supposing the fundus is placed to the inside, the fore finger of the left hand is carried upwards under the conjoined tendon, carefully separating the peritoneum. The finger acting as a guide, the needles are made to pass through the conjoined tendon and aponeurosis of the external oblique; or, if the hernial opening is large and the sac not small, through the rectus. They are made to take a good hold of the tissues, the sutures being at least half an inch apart. During this manœuvre the skin and superficial fasciæ are drawn inwards. The forceps are removed and the sutures pulled tight, while the attached fundus is guided into position. The sutures are now tied.

The forefinger of the right hand is now carried under the peritoneum on the outer and lower side of the opening, separating the peritoneum in the same way, and the sutures at the neck are introduced as far outward and downward as possible. If possible, they should be made to grasp Poupart's ligament and such fibres of the internal oblique and transversalis as may be within reach. When these sutures are tied, the sac is drawn completely inside the canal and lies obliquely across it. It fortunately happens that a large hernial opening is usually associated with a large sac, so that the available tissues are provided in necessary quantity. The dimensions of the sac must, however, be taken into account in fixing on the points for placing the sutures.

In small or even in moderately sized herniæ it is not necessary to place a fixation-thread at the neck if the twisting is made to begin well to the inner side of the internal opening. This thread may be omitted also if the sac is very thick and the areolar tissue dense.

The inguinal canal is now closed. Macewen's method of closing the internal ring is recommended. But in very large herniæ, in which the edges of the opening are surrounded by thick areolar—almost cicatricial—tissue, it may be impossible without dissection to isolate the conjoined tendon or the fibres of the internal oblique and transversalis. This dissection may be done and the layers caught; but it will usually be found sufficient to push the points of the needles obliquely upward through the internal pillar, taking in as much of the deep muscular layers as possible. On the under aspect of the opening the needles are passed, where possible, under Poupart's ligament, which is raised forward out of danger by the forefinger. The cord meanwhile will have been observed to be out of danger. Three, four or five sutures, according to the size of the opening, will be sufficient to close it. The fibres of the external aponeurosis will be crowded together and adherent. If it is difficult to close the opening, a few incisions made along the fibres will free them; and when the sutures are pulled tight, the opening is easily closed and their parallelism restored.

In congenital hernia certain variations in procedure are essential. The sac is completely divided just above the testicle, leaving enough tissue to form a tunic proper to the gland. A few sutures may serve to fix this tunic in proper position. If, as is not uncommon in these cases, the cord is firmly adherent to the sac, or lies in a special sulcus, then it is best to cut the sac completely away from the cord, leaving a long strip of sac attached to it. Division is carried well inside, and the sac may be twisted and otherwise dealt with as if it were entire. In some congenital herniæ there is a small neck, and perhaps a large mass of omentum in the sac. In three of these Smith cut the sac into two long flaps or aprons, and fixed the extremity of each flap on opposite sides of the hernial opening without twisting. The result was equally good.

The cutaneous wound is closed over a drainage-tube carried to the bottom of the wound on the abdominal aspect. Pressure over the ring induces œdema of the scrotum; a simple absorbent, fixed with strapping, is sufficient. The scrotum rests elevated on a pillow of wool laid over a broad piece of strapping fixed to the top of the thighs.

At the end of three weeks or thereabouts the patient is permitted to get up and walk about. The wearing of a truss is detrimental.

In femoral hernia the same method may be used of placing the twisted sac across the opening—only that no attempt is made to close the opening and the neck is not fixed. One side of the sac is pulled well down, and torsion made in the opposite direction. The fundus of the sac is attached either on the outside above Poupart's ligament, or directly above the ring, or to the inside. The proceeding is extremely simple, there being no cord to consider, the opening always being small (except in some cases that have been operated upon for strangulation), and the sac in the majority of cases easily isolated.

In umbilical hernia the whole sac should be removed, with all superfluous cutaneous and fatty tissues, and the wound be brought together exactly as in an ordinary abdominal section.—*Bristol Medico-Chirurgical Journal*, March, 1890.

II. Billroth's Operative Methods in Fissures of the Soft and Hard Palate. By Dr. F. SALZER (Vienna). Young children are rarely operated upon; by preference the operation is limited to individuals who have passed their 14th year. The incision through the muscles of the palate to remove tension, introduced by Ferguson, is omitted, and instead of it the median plate of the pterygoid process is severed subcutaneously at the base of the hamular process, so that through temporary dislocation of the point of insertion, that is to say, of the point of fixation of the musculature, the continuity of the latter being thus preserved, the tension of the soft palate is removed. This simplification of the technique has now been successfully employed in 15 cases.

The child, with its head hanging backward, and the trunk elevated, is narcotized by a mixture of chloroform, alcohol and ether (10:3:3). By means of Junker's apparatus the chloroform vapors are blown directly into the pharynx through the mouth or nose; through a metal tube bent at an acute angle. A Smith speculum (modified and completed by Billroth) is then introduced into the mouth of the child.

The operation begins with the freshening of the edges of the defect of the hard and soft palate. Hæmorrhage in this step of the operation, as well as in all the following, is controlled by temporary compression with gauze tampons.

After the lateral incisions on the outer side of the hard palate along the alveoli, beginning at the second incisor or first bicuspid tooth, and extending to the posterior border of the alveolar process, have been made, a chisel is inserted into the posterior angle of this incision against the pterygoid process, and by a few blows in a backward and upward direction, the median plate of the pterygoid process of the sphenoid bone is split off. Through prying motions with the chisel or the elevator (which is safer) it is made possible to displace this bone so far inward, so that the median edges of the wound of the soft palate may be brought into apposition.

The separation of the bridging flaps of the muco-periosteal covering of the hard palate is performed according to von Langenbeck's method. In order to adjust the wound-edges to each other at the border of the hard and soft palate, it was sometimes necessary to divide the nasal mucous membrane at the posterior edge of the floor of the mouth with Langenbeck's button tipped scalpel.

The sutures are inserted in the following way: Two, at the most three, auxiliary sutures, viz., quilt-sutures, of the soft and hard palate, are introduced, thus bringing the median edges of the wound squarely up together and preventing any tension of the few button sutures, afterward to be applied. The sutures are inserted by means of simple straight, arcuate or obtusely curved, two-edged needles, pierced at the point by an eye, and partly drawn through by Ferguson's loop method.

After the sutures have been tied carefully, the cavities of the nose and mouth are well irrigated with a 3% solution of salicylic acid. Finally, the lateral wound-fissures and wound-cavities are firmly packed each with a small strip of iodoform-gauze. This tamponade unites the advantages of being antiseptic and styptic, and is of quite an eminent importance for the immobilization and adaption of the parts of the palate which have become movable, and it also greatly contributes to relieve the tension of the sutures. Therefore this tamponade should remain in situ as long as possible (about 10 days).—*Centralbl. f. Chirurgie*, No. 13, 1890.

ALBERT PICK (Boston).

HEAD AND NECK.

I. **A Case of Revolver-Shot Wound of the Brain (Left Optic Centre).** By PROF. V. A. RATIMOFF (St. Petersburg, Russia). The writer's case presents a considerable interest in both diagnostic and physiological regards. A healthy student, æt. 22 years, accidentally shot himself, into his head, from a revolver (the bullet 8 mm. in diameter), the injury causing a complete blindness, but no loss of consciousness. On examination 3 hours later, the author found a penetrating wound of the right parietal bone, situated 8 cm. above, and 3 cm. behind, the auditory meatus. The pupils and all movements of the eyeballs, as well as the ocular fundus, proved to be quite normal. The patient complained only of being totally blind; in fact there was nothing wrong beyond the loss of sight and facial pallor. On the third day the cranial wound was exposed, enlarged and explored; some depressed fragments and a mass of blood clots and crushed brain substance were removed, and a probe passed into the bullet track 4 or 5 cm. downward, but no bullet could be discovered. The wound was thoroughly cleansed, powdered with iodoform, supplied with a drainage tube, the cutaneous flaps closed with sutures, and an antiseptic dressing applied. On the next day the patient's sight strikingly improved; on the eighth, he could read any types, but there remained hemianopsia affecting the left half of the vision field on both sides. The patient survived 6 months. During the last 2½ months of his life his sight gradually deteriorated, while there supervened excruciating headache, alternating with sopor, and contractions of the right extremities. The necropsy revealed two abscesses situated in the occipital lobes posteriorly, the left cavity containing the bullet lying free in pus. It was found that the bullet, on its way to the left occipital lobe, had pierced the right hemisphere and longitudinal sinus, causing a profuse extravasation. Discussing the case, Dr. Ratimoff points out that, 1, it gives an unequivocal support to Munck's well known teaching, according to which the occipital lobes contain each a cortical optic centre; 2, the hemianopsia observed in the patient was caused by a destructive lesion of Munck's left optic centre; 3, a primary both-sided blindness was caused by the disintegration of the left centre, and by the compression of the right one by blood-clots; 4, a secondary loss of sight resulted from the development of the abscesses.—*Bolnitchnaia Gazeta Botkina*, Nos. 1 and 2, 1890, p. 26.

VALERIUS IDELSON (Berne).

II. Operations for Septic Thrombosis of the Lateral Sinus Consecutive to Aural Disease. MR. BALLANCE (London).—Four cases reported in which the supervention of cerebral symptoms as a sequel to a long-standing purulent discharge from the ear was held to justify the inference of thrombosis of the lateral sinus, for which an operation was in each case undertaken, in two of the four with complete success. The first case was that of a man, æt. 21, who had had a discharge from the ear for 15 years, and this had ceased suddenly some days before his admission to the hospital in May, 1889. There was pain in the ear, headache, giddiness, and, later on, shivering and vomiting. There was no tenderness or swelling over the mastoid, and no optic neuritis. In fact the general aspect of the case was that of typhoid fever, and nothing but the marked and rapid oscillations of the temperature saved them from that diagnosis. They decided to trephine, and deep down the bone was found to be green and offensive. The groove of the lateral sinus was filled with stinking pus, which was also traced along the posterior aspect of the petrous portion of the temporal bone. He removed all the diseased bone he could get at, and then tied the internal jugular vein in the neck, dividing it between two ligatures. The effect on the condition of the patient was marked and immediate, and 36 hours afterwards he was bright and cheerful. The pulse and the temperature were normal. In the following days he had symptoms of pulmonary infarct, and pain in the ankle-joint and foot. A week later he had a large abscess in the buttock. At that time something projected from the wound in the mastoid region, which, on being withdrawn, proved to be one inch and a half of the walls of the lateral sinus that had sloughed away. In order to cut short any further septic complications, Mr. Ballance injected some mercurial solution with a syringe into the distal end of the divided jugular vein, and thoroughly washed out the vein between that point and the lateral sinus. A quantity of pus escaped from the vein when reopened. The patient ultimately did very well, and recovery was complete by August. (The patient attended and was examined by the Fellows). The second case was in a lad, æt. 18 years, admitted into the West London Hospital in August last, with the usual symptoms of headache and vomiting, going on to delirium, etc. There was a history of aural discharge since infancy. On admission he was dull, the temperature was 104° F., the tongue brown and dry, and there was swelling and tenderness over the mastoid, with optic neuritis. The same operation was performed, comprising the ligature of the internal jugular vein, and the same pathological changes were found. Death took place a day or two later from general pulmonary infarction, showing that the operation had been undertaken too late. The brain and membranes showed nothing wrong. The third case was that of a girl of 14, who had had a discharge from the right ear for two years. The external meatus was found to be blocked by a polypus. There was shivering, and there had been vomiting and delirium, but no œdema over the mastoid nor optic neuritis. Some slight albuminuria. Temperature 100° to 105° F. The same operation was performed, but after ligaturing the internal jugular vein it was found to include the clot, and an incision was therefore made lower down and another ligature applied. He then syringed through the vein into the lateral sinus, as before. The patient seemed to promise well, but succumbed unexpectedly to an attack of laryngeal spasm, due to the formation of a small abscess in the larynx. The fourth case was operated upon as recently as March 6, of this year, the patient being a woman æt. 24 years. The symptoms and treatment were substantially the same, and in spite of slight pulmonary and gastro-intestinal signs of infarction she was at present practically well. The author insisted upon the difficulty of establishing an early diagnosis, especially in the absence of a history of otorrhœa, and upon the inutility of operative interference which did not comprise ligature of the internal jugular vein. The principal points which were to be relied upon to establish the diagnosis were (1) a history of a discharge from the ear; (2) the sudden onset of the disease; (3) the extreme and rapid oscillation in the temperature; (4) the repetition of rigors and vomiting; (5) optic neuritis and other cerebral symptoms; and (6) tenderness and swelling in the mastoid region, with stiffness of the neck. —*Brit. Med. Jour.*, April 5, 1890.

III. Cystopneumatic Degeneration of the Middle Turbinated Bone. By DR. E. SCHMIEGELOW (Copenhagen). The writer communicated to the Copenhagen Medical Society four cases of this disease. This consists of a bladder-like swelling of the anterior end of the middle turbinated bone, which then is transformed into a cavity holding air and opening into the meatus medius by means of one or more openings.

All the four cases were those of children resembling one reported by Glasmacher and four by Max Schäffer, which also were those of children. All the four cases suffered from *attacks of headache*, which were terriffic in their intensity, and rendered the patients unfit for work temporarily, made them keep abed, and even in one patient caused vomiting. The mucous membrane which covered the bony cyst was in all polypously degenerated. The bony structures were quite distorted as a consequence of the pressure of the bony cyst, but the outer bones of the face were unchanged. The size of the cysts varied from that of a bean to that of a walnut, and in the largest measured 1½-inches in length, in breadth ⅝-inch, and in height 1 inch. The cysts were removed by means of the pincet, the forceps, or the loop. The cavity of the cyst was lined with a large ciliated cylindrical epithelium, but the mucous membrane lacked glands. After removal of the cyst the headache and other symptoms disappeared.—*Hospitals-Tidende*, December 25, 1889.

IV. Colossal Nasal Polypus. By DR. E. SCHMIEGELOW (Copenhagen). Dr. E. Schmiegelow demonstrated at the meeting of the Copenhagen Medical Society of Oct. 29, 1889, an unusually large nasal polypus. Its structure was that of the usual serous fibromata or mucous polypi. It was 5 inches in length, and extended from the right nostril through the entire length of the nasal cavity back to the naso pharyngeal space from where it sent down a prolongation which extended below the free edge of the velum palati. This caused continual movements of swallowing. The patient, a workingman, æt. 40 years, had only been troubled by the presence of the tumor some 14 days, when it began to bother him in his pharynx; otherwise it caused no other phenomena except to occlude completely the right nasal cavity. The polypus was removed through the naso-pharyngeal space by introducing a loop through the mouth and up back of the palate as high up as possible around the tumor, which was then extracted with ease. The place of attachment was found to be the posterior end of the right turbinated bone.

In the discussion Dr. Lange says he thinks he has seen a very great inclination in posterior nasal polypi to recur after removal, which removal is best done with a hook. Dr.Schmiegelow most easily removes such polypi by means of the piano string loop, but if that failed he would try the hook. The case described was operated upon through the mouth, as it was at first thought to be, on account of its hanging so far down, a pharyngeal polypus; indeed, it was so large as to be removable with difficulty through here. Dr. Laub, head physician of the General Hospital, mentioned a case (a woman) seen at the hospital, where mucous polypi were removed several times, but as she returned again and again with the same symptoms, the whole left nostril was found to be filled with a firm mass, which, removed with the forceps, showed itself to be a cyst. The hæmorrhage was quite considerable.—*Det Medicinske Selskob i Kjobenhavn—Hospitals Tidende*, Dec. 25, 1889.

F. H. PRITCHARD (Boston).

CHEST AND ABDOMEN.

I. Pathogenesis of Certain Abscesses of the Breast. By

Dr Budin (Paris). The author contributes some clinical observations upon the mooted question as to whether mastitis occurs through the lymph vessels from fissures of the nipple, or from direct emigration of the inflammatory agents through the milk channels. He has positively demonstrated in a series of cases that in the beginning of the inflammatory process the cells could be forced, through pressure, from the milk ducts; these were shown, both by microscopical examination, as well as by culture tests, to contain germs in large quantity.

These facts were the basis of a therapeutic measure, which was employed in 8 cases of acute mastitis as soon as the presence of pus in the milk ducts was ascertained, these latter were once daily emptied by pressure, and in the course of 2 to 3 days complete cure took place.

Sprengal, of Dresden, in commenting upon these observations of Budin (*Centbl. f. Chirurgie*, No, 9, 1890), suggests that, granting that these are borne out by further experience, all children suffering from suppurative processes should not be allowed to suckle from the mother. Vice versa, Budin believes that the child itself may become infected from nursing a breast the site of a mastitis, and is disposed to trace certain cases of furuncle in small children to such an origin.—*Bull. del Acad. de Med.*, No. 15, 1889.

George R. Fowler (Brooklyn).

II. Case of Penetrating Wound of the Abdomen. By Dr. Joseph V. Bertenson (St. Petersburg, Russia). A workingman, while suffering from an attack of delirium tremens, stabbed himself with a knife into the neck (without wounding the carotid) and abdomen, and was brought to the hospital unconscious and pulseless, with several intestinal coils protruding from the abdominal wound and covered with hay, straw, and all possible dirt and mud. After a hypodermic injection of camphor, the peritoneal cavity was thoroughly washed out with an antiseptic lotion, the bowels reduced into the abdomen, and both of the wounds closed with sutures. Four weeks later the man was up and about, in the best of health. "Nowadays," the author adds, "similar cases may place a forensic expert in a rather difficult position with regard to determining the degree of dangerousness of a traumatic lesion, antiseptics having considerably changed our views on the subject." [Dr. Praxin, of St. Petersburg, also relates a case of penetrating wound of the abdomen with protrusion of intestinal mass. The latter was for some time lying in dirt and dust. A peasant woman washed out the bowels with ordinary water and returned them into the abdominal cavity. The patient made a good recovery.—*Reporter.*]—*Transactions of the Pirogovian Russian Chirurgical Society*, 1890, vol. vii., p. 12.

VALERIUS IDELSON (Berne).

III. A Contribution to Laparotomy for Abdominal Injuries. By P. POSTEMSKI. The cases reported by the writer are divided into two series.

The first series, four in number, considered by the writer, consisted respectively of rupture of the spleen with the skin intact, rupture of the intestines with also an intact skin, an abdominal wound with seven intestinal wounds, and an abdominal wound with prolapse of the intestine and incipient peritonitis. In all cases laparotomy was performed. Only one case, the latter, recovered; the first one perished from hæmorrhage and both the others from septic peritonitis.

The second series included eighteen cases, among which were fifteen where traumatic causes were the indications for the laparotomy. The cases in question here were six simple penetrating wounds of the abdominal walls, four with protrusion of the omentum, four with multiple wounds of the intestines, and one with injury of the liver. The first ten healed by first intention. They came under treatment one to three hours after the accident. The case of injury of the liver with very great hæmorrhage into the abdomen recovered. It came under treatment almost immediately after receiving the injury. A case with thirteen wounds of the small intestine also recovered in the same manner. Another, of the mesentery, with prolapse of a large portion of the intestine and omentum as hernia properitonealis from separation of the peritoneum. It came under treatment one hour after the accident. A stercoral fistula remaining after the operation healed spontaneously.

Three cases of simple intestinal injury resulted fatally; two from anæmia and only one from diffuse peritonitis. The injury of the intestines in the last case only implicated the serous and muscular coats. The intestinal sutures in both the other cases had holden well. All three came from $^3/_4$ to $1^1/_2$-hours after the injury into the hands of the operator.—*Bull. della reäle accademia med. de Roma*, Session of Feb. 24, 1889.

IV. On the Surgical Treatment of Long Lasting Abdominal Colics. By DR. LAUENSTEIN (Hamburg). The writer found upon operating upon a single lady, æt. 63 years, who for one year had suffered from abdominal disturbances with obstinate constipation, the transverse colon near the splenic flexure compressed by an omental band of the breadth of two fingers. This band was ligated in two places with silk ligatures. Recovery followed.—The cause of the formation of this constricting band is unknown.—*Fortschritte der Medicin*, 5, 1890.

V. A Case of Perigastric, Sacculated, Suppurative Exudate After Acute Phosphorus Poisoning. By AXEL HAGGQVIST. A servant girl, æt. 25 years, who being pregnant already three months and trying to produce an abortion swallowed the heads of some phosphorous matches. After the abortion had occurred, there developed with grave disturbances of the general condition, chills, continuous and remitting fever-movements, violent pains in the gastric and hepatic regions, much albumen in the urine. There was an abscess in the abdomen which caused the abdominal walls of the epigastrium to bulge outwards, which was opened in the median line and drained. It contained 1½ liters of a yellowish green putrid and blood mixed pus. The exploring finger introduced through the opening could be placed behind the spinal column and slightly upwards and there found what was thought to be the stomach compressed into a a small space; the diaphragm could be felt above the spleen, and on the right above the left lobe of the liver. The cavity, which after evacuation diminished rapidly in size, was crossed by finer and larger fibers.

The patient recovered entirely. The origin of the abscess may be explained in two ways: either it was caused by circumscribed destruction of the stomach wall and subsequent peritonitis, or from a phlegmonous gastritis caused by the phosphorus.—*Upsala Täkareforen Forhandl*, Bd. xxv

F. H. PRITCHARD (Boston).

VI. Echinococcus of the Spleen. By DR. EDMONDO COEN. Echinococcus of the spleen, according to the consonant opinion of clinicians and anatomists, is of rare occurrence, most rarely is it found solitary in this organ. The statistics of *Frey* show 3½%, those of Neisser 2.83% as to their frequency. The writer reports on three cases of echinococcus of the spleen which were accidentally observed in the pathological institute at Bologna.

CASE 1. A woman, æt. 70 years, who had died from marasmus. Here there was found a solitary echinococcus cyst which divided the organ into two segments, completely separated one from another. The cyst wall had several small pieces of the spleen enclosed within itself.

CASE 2. A man, æt. 46 years, death from meningitis. A solitary echinococcus was found on the concave surface of the organ, sunken deeply into its parenchyma and covered by a firm and partly calcified capsule.

CASE 3. A man, æt. 40 years, death from cardiac insufficiency. On the convexity of the spleen was an echinococcus cyst; an echinococcus of the liver was also found at the same.

In none of the cases were there any disturbances during life which indicated a splenic affection. In the literature there are known up to now only fifty-eight cases of solitary splenic echinococcus and forty-two cases where other organs besides the spleen were affected. From this is seen the relative frequence of the solitary echinococcus. It is observed more frequently in males than in females. Its size is variable; often it forms enormous tumors (*F. v. Kuehn, 11 ½ pd.*). Usually only one single tumor is formed. Among the forty-two cases of the second series the parasite lodged thirty-six times in the liver, ten times in the omentum; five times in the parietal layer of the peritoneum; four times in the heart; four times in the lungs; four times in the kidneys, etc. The splenic tissue is either but slightly altered or it is altered till but little remains. Continual growth of the cyst may disturb the continuity of the organ and loosen its fixation (floating spleen). The individual afflicted has mostly no disagreeable symptoms. Sometimes one sees grave disturbances; pains in the splenic region, phenomena of compression of the stomach, of the intestine or the ureter; displacement of the diaphragm, of the left lung or of the heart; suppuration of the cyst's contents and peritonitis in consequence. The result varies. Recovery may take place from sacculation (calcification of the capsule) and death of the parasite. Suppurative processes lead to rupture and evacuation of the contents into the neighboring cavernous organs, as into the intestine, for example in a case of *Berthelot* where after evacuation of twelve hundred vesiculæ per rectum recovery took place. Recovery has also taken place after evacuation through the air passages; if it breaks into the peritoneal cavity fatal peritonitis follows. As to therapeutic measures only surgery comes into consideration; puncture with or without injection of iodine or carbolic acid (obsolete), laparotomy and splitting of the cyst-wall and extirpation of the spleen.—*Bull. del. sc. med. Bologna*, 1889. vol. xxiii. Ser. vi.

F. PRITCHARD (Boston).

VII. On Parietal Hernias. By KR. POULSEN (Copenhagen). After a brief consideration of the various theories on the origin of parietal hernias, the writer reports on thirteen cases treated in the Copen hagen "Kommune Hospital" during the last twenty-five years. In nine cases the diagnosis was only made at the herniotomy: in three cases taxis was tried; all three patients died and the necropsy showed the patients to have had the parietal form; once the hernia was only discovered at the necropsy (hernia obturatoria).

The view that hernias of the intestinal walls only develope in a preformed hernia-sac and preferably make their appearance in consequence of this where there are small pouches of the peritoneum, as the crural canal and the obturator foramen, finds a confirmation in these thirteen cases, for eleven of these were femoral and two obturator hernias. The youngest patient was 36, the eldest 83 years of age. Among these cases there were twelve females and one male. The two patients with obturator hernias perished. Once the hernia was first revealed at the post mortem examination; in the second case laparotomy was performed. Of the eleven femoral seven were gangrenous, of which six ended fatally, while one with the formation of an artificial anus recovered; in the four nongangrenous hernias herniotomy was performed each time with a favorable result.

The writer would make it distinctly understood that in such cases the prognosis should be given in these varieties of hernia with great caution; on account of the incomplete occlusion of lumen of the intestine phenomena of incarceration may not make their appearance, or they may be very slight, but yet there may be gangrene of the incarcerated intestinal wall. If one has diagnosed a parietal hernia then herniotomy is to be preferred to taxis. Only by means of an operation can one judge of the condition of the intestine and be sure of a successful reposition.—*Hospitals Tidende*, 1889. 3, *Række*, Bd. vii. No. 18.

ALBERT PICK (Boston).

VIII. On the Development of the So-called Strumous Buboes and the Indications for Their Early Extirpation. By DR. H. G. KLOTZ (New York). Strumous buboes are generally considered as developing from a common bubo in subjects of a strumous (tuberculous or scrophulous) constitution (Bumstead & Taylor, Lang. etc.) or to be the outgrowth of syphilitic adenitis in strumous patients (Zeissl). On the strength of more than 120 cases, which came under his care in the German Hospital of New York, during 10 years service Klotz maintains that this opinion is erroneous, that in most instances strumous buboes are simply the consequence of an infection with some septic matter, probably cocci, and that they occur as a rule in individuals who have enjoyed perfect health and sound constitution before they became infected, and do so again after they are relieved of the bubo. Whenever they develop on a patient previously affected with syphilis or tuberculosis they do not show any peculiarities from other cases, and are not affected by any specific treatment. They make their appearance after very slight lesions of the genital region, or from herpes, eczema, or simple abrasions of the skin, furuncul inflammation, etc., or appear in connection with chronic gonorrhœa, but not after typical chancroid or initial lesions of syphilis. The strumous bubo differs from its origin from other buboes and its characteristic features are the following:

1. Simultaneous affection of all the ganglia of a certain group, (Auspitz, Bumstead & Taylor).
2. Early formation of miliary foci of pus in the affected glands (Culvert) and gradual coalescence into larger abscesses.
3. Early and firm attachment of the whole group to the underlaying tissues, while the skin remains movable and intact.
4. Coalescence of the whole group into one single circumscribed tumor.
5 Occurrence of thickened and enlarged lymphatic vessels.
6. Secondary affection of symmetrical groups or of other neighboring groups (femoral, iliac, hypogastric, Œdmanson).
7. Early deterioration of general health with fever, etc., entirely out of proportion with the local symptoms, during the early stages.
8. Last but not least the regular and simultaneous appearance of all the symptoms just enumerated.

It seems therefore appropriate to designate such buboes by a different name, as *septic aggregated bubo* or *septic bubo en groupe*, and reserve that of strumous bubo to the rare cases which are really of tuberculous nature.

Treatment of the swollen glands with the usual methods (ice, poultices, mercury, parenchymatous injections of carbolic acid, etc.) almost always proved ineffectual, and in spite of it the tumor continued to grow, resulting in destruction of the whole mass, leaving fistulae, etc., as are found described in the books. To avoid all these consequences K., who found the miliary abscesses already in glands of the size of a large pea with hardly noticable swelling and perfect indolence, strongly recommends the extirpation of the entire affected group as early as possible, assuring a smaller tumor, a less severe operation, an early recovery and an insignificent scar, while all the disadvantages increase with time. The greatest difficulty about the operation itself is caused by the proximity of the large veins, particularly of the vena saphtena magna, which may be found closely attached to or completely imbedded into the mass of the glandular tumor, or may show irregularities (v. ANNALS Jan. 1887). The wounds from the operation in cases without complication usually healed in 4 to 6 weeks, or less after very early extirpation, and patients rapidly regained their usual strength and health. Gangrene of the scrotum never occurred; œdema, however, of the scrotum and of the extremity were observed occasionally. Erysipelas followed in a number of cases, but only once led to a fatal issue. Another death occurred from secondary hæmorrhage from the femoral vein, which had been corroded by a strong solution of chloride of zinc. In both cases death could not be attributed to the operation directly.—*Berlin klin. Wochenschrift*, 1890, Nos. 6–8.

AUTHOR'S ABSTRACT.

GENITO-URINARY ORGANS.

Urinary, Urethral, or Catheter Fever. By C. G. BUCHANAN KLOPHEL, M.D. (Rochester, N. Y.). The author concludes a comprehensive paper as follows:

1. In operations for the relief and cure of chronic retention of urine, the complete evacuation of all the urine at first should not be permitted, but rather the withdrawal of only a few ounces, and the immediate injection of a solution of boracic acid or other mild antiseptic, in volume equal to one-half the quantity of urine withdrawn, lessening with each succeeding injection the quantity of fluid thrown in, and increasing the amount of urine withdrawn. Thus, by regular gradation the bladder is emptied, and the circulation, in its abnormal wall, is accommodated by degrees to the new order of things. The same may be said of the ureters and kidneys. As a result, we have less shock, if indeed any; no suppression of urine; no hæmorrhage from the urinary organs; and slight, if any, urine fever, so-called.

2. Tight strictures of the membranous urethra are more success-

fully, and hence more safely, dealt with by perineal section. When associated with strictures of the pendulous urethra, the combination of internal and external urethrotomy is undoubtedly the best treatment.

3. The decomposition of blood, urine, and other organic matter in the bladder or urethra, may give rise to the phenomena through the production of ptomaines; hence the necessity for antiseptic treatment, generally and locally.

4. The disease is more common among those who are predisposed to it by the nature of a peculiar nervous temperament.

5. In view of the fact that more or less shock attends all urethral operations, especially the forcible and rapid dilatation of old strictures with sounds; and as sudden death has followed even the gentle insertion of a sound, the calibre of which was less than the stricture, it is hence important that all practical precautions should be observed in every case of dilatation of a urethral stricture or strictures, with a view to avoiding, so far as possible, such effects, that unhappy sequel being more liable to follow rapid dilatation of old strictures when not preceded by internal urethrotomy.

6. It is also important to ascertain the condition of the bladder, urine and kidneys before operating for stricture of any degree, and when these two organs are found extensively diseased, the greatest skill, gentleness and patience is necessarily called for in the treatment of strictures. Further, when these organs are diseased, and we have to deal, in a given case, with several strictures of very small calibre of the pendulous urethra, two courses compatible with safety are presented, viz: gradual dilatation alone, or internal or external urethrotomy, leaving a few days between the internal and external operations, the latter being done first.

7. Quinine, in any quantity, exerts no manifest influence over the course of the disease.

8. Boracic acid, internally, by its resolvent and antiseptic action doubtless does exert a favorable influence upon the disease, and will prove a prophylactic if given some days before operating.

9. With a further view to prophylaxis, both before and after all operations upon the urethra—even simple catheterism—the canal should

be injected with some mild antiseptic. This is more essential after each act of micturition, subsequent to internal urethrotomy.

10. When urine fever persists despite all treatment, or should, after any operative interference with the urethra, jeopardize the patient's life, perineal section should certainly be done.

11. I believe the disease in some instances to be one resulting from the escape of micro-organisms into the circulation. In others it is due to the absorption of their products at the points of operation. It is probable that in some cases the absorption of these products, and those of tissue disintegration, takes place at different points throughout the genito-urinary tract. In other words, in some it may be a septicæmia, in others a sapræmia. I think, so far as our knowledge goes, we may have both acting at one time.—*Therapeutic Gazette*, March, 1890.

II. Calculus Impacted in the Ureter Removed by Operation. By G. Twynam (Sydney). A child, æt. 8 years, had suffered from pain in the abdomen and hæmaturia for 16 months. Sounding discovered no stone, and no traces of bilharzia could be found, although a large amount of blood and large mucous casts were found in the urine. Pain was felt over the pubis and at the end of the penis. The temperature varied from 97° to 100°, being subnormal when no blood was present. Six months later the pus and mucus still existed in the urine, the temperature being 104° with distinct tenderness, but no pulse in the left side, although the patient leaned to that side. A month later an exploratory incision in the left linea semilunaris discovered no stone in the left kidney or ureter, but a calculus in the right ureter, two inches from the bladder. The wound was closed and healed well. Three weeks later an incision was made, similar to that used for tying the common iliac artery, and, after some difficulty in isolating the ureters, the stone was extracted with forceps through a linear incision; it weighed 6 grains and was just the size of a No. 12 catheter. The wound in the ureter was stitched with fine silk by means of a fine-eyed needle, although very difficult of accomplishment. A drainage tube was introduced to the bottom of the cavity, and the wound dressed with salicylic wool, but on account of urine soaking freely from the wound for the first three days, the dressings required frequent changing. Some suppuration necessitated the removal of the stitches with which the wound had been closed, and this was accompanied by severe rise in temperature for a few days. On the fifth day, however, the urine ceased to flow from the wound, which then rapidly healed, and the boy made a rapid recovery.—*London Lancet*, February 1, 1890.

JAMES E. PILCHER (U. S. Army).

III. Litholopaxy in Children. By DR. P. MORELLI. The author first discusses the most important objections urged against lithotripsy in former times, these consisting of those based upon exceeding narrowness of the urethra, the danger arising from the use of correspondingly small sized instruments, and the excessive reaction following the operation. Because of these the operation was restricted to exceptional cases in children, and lithotomy was given the preference as a means of treatment for vesical calculi. That these objections cannot be referred to the operation of litholopaxy is shown by the extraordinarily favorable results obtained by this operative procedure in this class of cases in recent times. The recent publication by Keegan of the astonishing results obtained in the Indore Hospital in the East Indies with this operation in children, whose ages ranged from 21 months to 14 years. From 1881 to 1886 he operated 58 times, with but one death arising therefrom, and up to 1888, 114 cases, with a mortality of but 3.5%.

The reasons for the great infrequency of the adoption of this operative procedure up to the present time may be comprehended as follows:

1. It is claimed that between the ages of 3 and 8 years, during which period of childhood vesical calculi occur in the young, the excessive narrowness of the urethra necessitates the employment of instruments of extremely small dimensions. An instrument with a very small beak will have its usefulness limited to the grasping of very small stones. Experience teaches, however, that the size of the

urethra in children is in no wise proportionate to the age of the child, and in addition to this there is a wide variation at this age in the distensibility of the canal It is also a well known clinical fact that in male children the subjects of vesical calculi there occurs an abnormal development of the penis. Keegan declares that he could easily pass, in a child of 11 months, a No. 7 English lithotrite into the bladder. In children from 3 to 6 years of age he employs No. 7 and 8 English. With a lithotrite No. 8 English stones weighing from 13 to 20 grm. could be easily grasped and crushed. In children of from 8 to 10 years he employs Nos. 10 and 11, and sometimes even to No. 14. These are not such extraordinary statements as would appear at first sight; the well known fact that the children, both male and female, reach development, particularly in the case of the sexual organs, at an extraordinarily, to us, early age, should be borne in mind.

Morelli found that a No. 6 instrument passes easily through the urethra of children of 2 to 3 years of age, and answers for grasping and crushing calculi of 7 grm. in weight.

The objection made against the operation because of the small size of the prostate, the pear-shaped form and high location of the bladder in children, cannot be held as valid against the operation.

Formerly, the great sensitiveness and irritability of the mucous membrane of the bladder, and the severe local and general reaction, were greatly feared. Bigelow's assertion that it is not the pressure of the instrument, but rather that of the fragments themselves remaining in the viscus which give rise to alarming symptoms, is borne out by Keegan's experience. With this in view, the operation may be prolonged at will, so long as the entire debris is removed and no source of irritation left behind.

Finally, if instruments which, after introduction into the bladder, can be easily moved back and forth along the urethra, tearing of the mucous membrane of the latter may be avoided. Before removing the evacuating tube, a mandril or plug is passed within the latter in such a manner as to close its fenestra, thereby preventing injury to the mucous membrane of the urethra by the presence of small portions of debris which may be lodged in the same. Extreme care and gentleness during the entire manipulation do away with all objections on this score.

Morelli recommends that the knowledge gained by the search for stone in the bladder should not be limited to ascertaining its mere presence in the bladder, but should also include its size, as well as the capacity of the urethra.—*Giorn. intern. del. Sci. Med.*, 1889.—*Centbl. f. Chir.*, 1890, No. 6.

IV. A Simple Method of Fastening in Situ an Elastic Catheter after Perineal Section. By DR. LAUENSTEN (Hamburg). For the purpose of fixing an elastic catheter in the urethra during the first few days following perineal section for deep urethral stricture, Lauensten employs the following method: A silk thread is tied around the catheter, at a point opposite the wound in the urethra, leaving both ends of the thread sufficiently long to allow of their being passed out of the perineal wound when the catheter is passed into the bladder. The wound itself is then packed with iodoform gauze, the free ends of the threads being finally tied over the latter. This serves the double purpose of fixing the catheter in situ and retaining in place the wound dressing of iodoform gauze. In a case reported the first redressing occurred in 6 days, and the catheter was retained for 12 days. Healing per primam of the urethral wound is claimed to have taken place, except at the point where the threads passed out of the same. The perineal wound had entirely closed at the end of six weeks. —*Centbl. f. Chir.*

GEORGE R. FOWLER (Brooklyn).

V. On the Treatment of Injuries of the Urethra and Their Results. By DR. HAEGLER. Five cases of injuries of the urethra which came into the clinic of SOCIN and E. BURCKHARDT led the writer to critically and experimentally elucidate the treatment of these injuries in the recent state and the results of such a treatment. The experiments which he made upon eight dogs as to the value of the urethral suture in incised and contused wounds of the urethra place this procedure upon a firm basis. His conclusions are as follows:

1. After every extensive rupture of the urethra external urethrotomy should be done as soon as possible, the posterior end of the urethra to be sought for and the two ends at once sutured; the two edges of the wound cannot however always be closely and equally united.

2. The suture should be introduced as far as possible into the submucous tissue and during the first 24–48 hours a catheter should lie in the urethra, the perineal wound not to be closed.

3. Only after a complete healing of the wound and then only should bougies be used. But if there be already callous strictures present the cicatricial masses should be excised and the ends of the urethral wound united at once.—*Deutsche Ztschr. f. Chirurgie*, Bd. xxix, Hft. 4, p. 277-310.

F. PRITCHARD (Boston).

WOUNDS, INJURIES, ACCIDENTS.

I. **Skin Grafting after Thiersch's Method.** By DR. IVAN I. FOMIN (St. Petersburg, Russia). The author details 18 cases (14 of callous, varicose, syphilitic, and post combustion ulcers of leg, 1 case of burn of thigh, 1 epithelioma of the forehead, 1 of the temporal region and 1 of nasal lupus), referring to 12 men, aged from 15 to 63, and 6 women, aged from 20 to 52, where he resorted to the transplantation of skin after Thiersch's rules (*Vide* ANNALS OF SURGERY, 1889, March, p. 179; April, p. 290 and May, p. 357).

In rough outlines, the author practises the method in the following manner. Given a case of crural ulcers, the latter are treated with warming compresses soaked in a weak (1 to 5,000) solution of corrosive sublimate, until a complete cleansing of the granulating surface has been obtained (which takes place in from 3 to 7 days). On the day of the operation, the whole limb is washed out with soap and some antiseptic lotion, after which a syringeful of a 4 % solution of cocaine is injected into the neighborhood of the ulcer and the latter carefully scraped out with a sharp spoon down to the fascia or muscles, any calous edges being pared with a knife. The precedure over, a compressing bandage is applied to arrest all hæmorrhage (which takes from ½ to 2 hours time). The next step consists in slicing off (by means of a razor) thin cutaneous strips measuring from 12 to 15 ctm. in length and 4 in breadth. The author usually cuts them out of the patient's arm (previously duly disinfected). Having moistened the slice with a 1 % solution of carbolic acid, he transfers it on the razor to the ulcer, until the whole area has been covered in such way that no exposed surface whatever has been left, the cuts of the strips overlaying (about ½ cent.) the edges of the wound. Then the adjusted grafts are dried out with cotton wool pellets, powdered with a thin layer of iodoform and covered with strips of fenestrated protective tissue placed perpendicularly to the cutaneous slices and overlapping each other in a tile-like fashion, the whole being covered with an antiseptic dressing and the limb immobilised. The slicing procedure is made painless by a hypodermic injection of a syringeful of the cocaine solution. The wounds left by it heal in from 7 to 10 days. The results obtained by Dr. Fomin are invariably brilliant; even most extensive and obstinate ulcers soundly heal in a few weeks or a couple of months.—*Vratch*, No. 11, 1890, p. 249.

II. Traumatic Hæmatoma of Major Labium. By DR. SERGHEI A. KOTLOFF (Potchep, Russia). A robust peasant woman æt. 27 years pregnant three months, while trying to take a seat on a shaky heavy block, was struck by the latter on her left major labium. On examination, the labium was found transformed into a very painful, bluish red, fluctuating, elastic tumor having the size of a big male fist and extending from the pubes down to the perineum. On the third day, the blood cyst spontaneously burst on its inner surface. The cavity gradually contracted, to completely heal in 3 weeks. The treatment consisted in rest, corrosive sublimate irrigations and iodoform dressing—*Letopis Khirürgitcheskaho Obshtchesva v'Moskve*, January 1890, p. 42.

VALERIUS IDELSON (Berne).

III. Wound of Female Genitals. By Dr. N. A. DOLGOPOLOFF (Kursk, Russia). A peasant woman, æt. 43 years, fell from the roof of her (low) hut to strike astride a hedge below. When seen shortly afterwards, she had facies hippocratica with small and slow pulse. On the right major labium there was found a lacerated wound freely admitting a forefinger which could pass up about 7 ctm., along the lateral wall of the vagina and nearly as much along a pouch deviating from the former in direction towards the mons veneris. The edges of the laceration were intensely crushed and œdematous. There was also present incontinence of urine caused by contusion of the urethra and vesical cervix. The wound was plugged with gauze and dressed, and stimulants administered internally. A good recovery ensued.—*Letopis Khirurgitcheskaho Obshtchestva v'Moskve*, February, 1890, p. 120.

VALERIUS IDELSON (Berne).